(12) UK Patent Application (19) GB (11) 2 036 780 A

(21) Application No 7940712
(22) Date of filing 26 Nov 1979
(30) Priority data
(31) 2851787
(32) 30 Nov 1978
(33) Fed. Rep. of Germany (DE)
(43) Application published
2 Jul 1980
(51) INT CL³
C09B 43/16 D06P 1/39
(52) Domestic classification
C4P 116 2G6B 2H10
2H11 2H15 2H20 2H21
2H3 2H5 2H6 2H9 9A7B
(56) Documents cited
GB 760347
(58) Field of search
C4P
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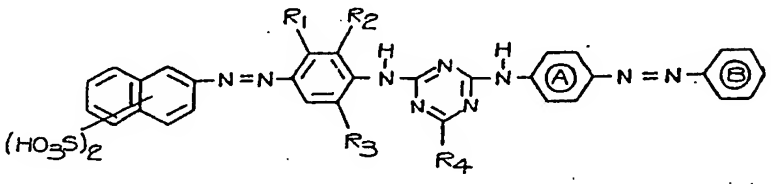
(54) Disazo dyestuffs

(57) Dyestuffs of the formula



in which

R_1 is H, halogen, alkoxy or acylamino,

R_2 and R_3 are independently H, halogen, alkyl, alkoxy, or acylamino,

R_4 is halogen, OR_5, SR_5 or NR_6R_7 wherein

R_5 is H, C_1—C_6-alkyl, aryl, heteroaryl, aralkyl, or cycloalkyl, and

R_6 and R_7 are independently H, amino, optionally substituted C_1—C_6 alkyl, aryl, heteroaryl, aralkyl or cycloalkyl, or together may complete a 5- or 6-membered hetero ring optionally containing further hetero atoms, and wherein rings A and B may be optionally substituted and their use for the dyeing of cellulose containing materials in bright yellow shades.

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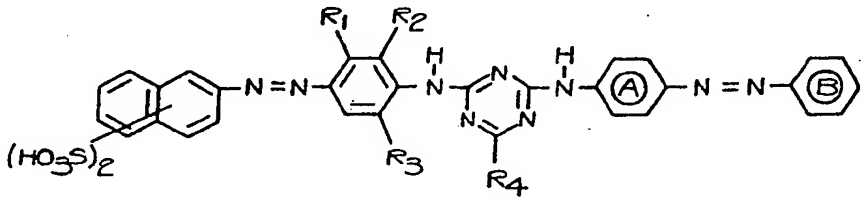
SPECIFICATION

Disazo dyestuffs

The invention relates to new yellow disazo dyestuffs of the general formula I



I

in which

R_1 denotes hydrogen, halogen, alkoxy or acylamino,

R_2 and R_3 independently of one another denote hydrogen, halogen, alkyl, alkoxy or acylamino and

R_4 denotes halogen, OR_5, SR_5 or NR_6R_7,

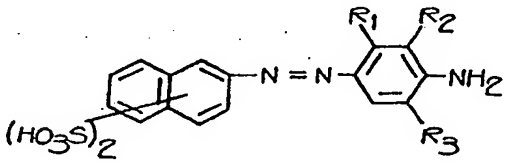
wherein

R_5 denotes hydrogen, low-molecular alkyl, aryl, hetaryl, aralkyl or cycloalkyl and

R_6 and R_7 independently of one another denote hydrogen, amino, low-molecular alkyl, aryl, hetaryl, aralkyl or cycloalkyl, or together form a 5-membered or 6-membered ring, optionally with the inclusion of one or more hetero-atoms, in particular oxygen and/or nitrogen, it being possible for alkyl, aryl, hetaryl and aralkyl to be in turn substituted,

and in which

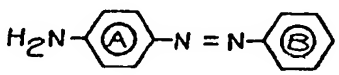
the rings A and B can optionally be substituted, and to a process for their preparation, characterised in that one mol of a cyanuric trihalide, one mol of an aminoazo compound of the general formula II



II

in which

R_1, R_2 and R_3 have the abovementioned meaning one mol of an aminoazo compound of the general formula III



III

in which

the rings A and B can optionally be substituted, and optionally one mol of a compound of the general formula IV

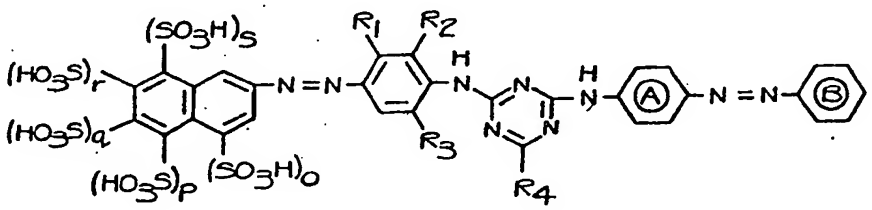
$$HR_4 \qquad \text{IV}$$

in which

R_4 is other than halogen,

are reacted with one another in any desired sequence in the presence of an acid-binding agent, the aminoazo compounds of the general formulae II and III being prepared in a known manner.

Advantageous dyestuffs are those of the general formula V

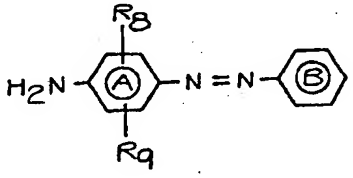


V

in which

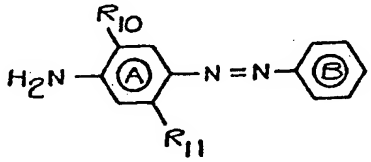
R_1, R_2, R_3 and R_4 have the abovementioned meaning and o, p, q, r and s are 0 or 1, but o + p + q + r + s equals 2,

and in which
the rings A and B can optionally be substituted.
Particularly advantageous dyestuffs are those of the general formulae I and V in which
R_4, o, p, q, r and s have the abovementioned meaning and
R_1 denotes $NHCOCH_3$ or $NHCONH_2$ when
R_2 and R_3 represent H, or
R_2 denotes H, CH_3, OCH_3 or OC_2H_5 when
R_1 and R_3 represent H,
and in which
the rings A and B can optionally be substituted.
Very particularly advantageous dyestuffs are those of the general formulae I and V in which
R_1, R_2, R_3, o, p, q, r and s have the abovementioned meaning,
R_4 denotes OH, OCH_3, $OC_2H_4OCH_3$, NH_2, NHC_2H_4OH, $N(C_2H_4OH)_2$, $NC_2H_4OC_2H_4$, NHC_6H_5, $N(CH_3)C_6H_5$, $NH(3—C_6H_4SO_3H)$ or $NH(4—C_6H_4SO_3H)$, $N(CH_3)C_2H_4OH$, $N(C_2H_5)C_2H_4OH$, $NHCH_2CH(CH_3)OH$ or $N(CH_2CH(CH_3)OH)_2$ and
the rings A and B can optionally be substituted.
Interesting dyestuffs are those of the general formulae I and V in which
R_1, R_2, R_3, o, p, q, r and s have the abovementioned meaning,
R_4 denotes NH_2, NHC_2H_4OH, $N(C_2H_4OH)_2$ or $N(CH_3)C_2H_4OH$
and
the rings A and B can optionally be substituted.
Dyestuffs of the general formulae I and B which are prepared using compounds of the general formula VI



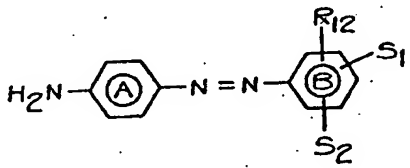
VI

in which
R_8 and R_9 independently of one another denote H, Cl, OH, OCH_3, OC_2H_5, $OCOCH_3$, $OCOC_6H_5$, OSO_2CH_3, $OSO_2C_6H_5$, CH_3, CH_2SO_3H, NH_2, $NHCOCH_3$, $NHCOCH_2OH$, $NHCOC_6H_5$, $NHCONH_2$, $NHSO_2CH_3$, $NHSO_2C_6H_5$, COOH or SO_3H,
and in which
the ring B can optionally be substituted,
as compounds of the general formula III are preferred.
Dyestuffs of the general formulae I and V which are prepared using compounds of the general formula VII



VII

in which
R_{10} denotes H, CH_3, Cl, OCH_3, OC_2H_5 or SO_3H and
R_{11} denotes H, CH_3, Cl, OCH_3, OC_2H_5, $NHCOCH_3$ or $NHCONH_2$,
and in which
the ring B can optionally be substituted,
as compounds of the general formula III are particularly preferred.
Dyestuffs of the general formulae I and V which are prepared using compounds of the general formula VIII



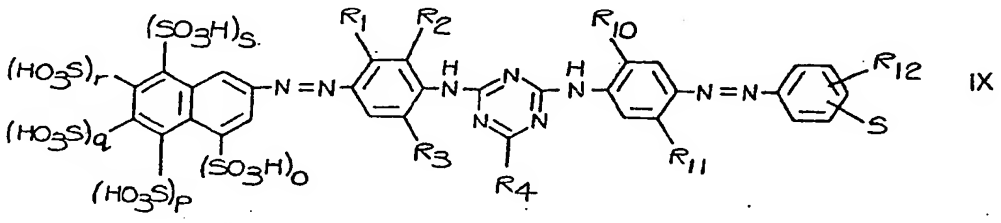
VIII

in which
R_{12} denotes H, Cl, CH_3, OCH_3, OC_2H_5 or OH and

S_1 and S_2 independently of one another denote H, SO_3H, COOH or CH_2SO_3H,
and in which
the ring A can optionally be substituted,
as compounds of the general formula III are very particularly preferred.

Particularly interesting dyestuffs are those of the general formulae I and V which are prepared using compounds of the general formula VIII
in which
R_{12} denotes 4—H, 4—CH_3, 4—OH or 4—OCH_3, when
S_1 represents 3—SO_3H, 3—COOH or 3—CH_2SO_3H and
S_2 represents H, or
R_{12} denotes 3—H, when
S_1 represents 4—SO_3H, 4—COOH or 4—CH_2SO_3H and
S_2 represents H,
and in which
the ring A can optionally be substituted,
as compounds of the general formula III.

Dyestuffs of the general formula IX



IX

in which
o, p, q, r and s are 0 or 1, but o + p + q + r + s equals 2,
and in which
R_1 denotes $NHCOCH_3$ or $NHCONH_2$, when
R_2 and R_3 represent H, or
R_2 denotes H, OCH_3 or OC_2H_5, when
R_1 and R_3 represent H, and
R_4 denotes NH_2, NHC_2H_4OH, $N(C_2H_4OH)_2$ or $N(CH_3)C_2H_4OH$,
R_{10} denotes H, CH_3, Cl, OCH_3, OC_2H_5 or SO_3H,
R_{11} denotes H, CH_3, Cl, OCH_3, OC_2H_5, $NHCOCH_3$ or $NHCONH_2$ and
R_{12} denotes 4—H, 4—CH_3, 4—OH or 4—OCH_3, when
S represents 3—SO_3H, 3—COOH or 3—CH_2SO_3H, or
R_{12} denotes 3—H, when
S represents 4—SO_3H, 4—COOH or 4—CH_2SO_3H,
are of very particular interest.

Examples of aminoazo compounds of the general formula II are those which are obtained by diazotising 2-aminonaphthalenedisulphonic acids, such as, for example, 2-aminonaphthalene-1,5-disulphonic acid, 2-aminonaphthalene-3,6-disulphonic acid, 2-aminonaphthalene-3,7-disulphonic acid, 2-aminonaphthalene-4,8-disulphonic acid, 2-aminonaphthalene-5,7-disulphonic acid or 2-aminonaphthalene-6,8-disulphonic acid, and coupling the diazotisation products to aminobenzenes which are optionally substituted in the 2-position or in the 3-position, such as, for example, aniline, 2-methylaniline, 2-methoxyaniline, 2-ethoxyaniline, 2-chloroaniline, 3-acetylaniline or 3-aminophenylurea; the ω-methanesulphonic acids of the abovementioned aminobenzenes can equally well be used as coupling components, the protective group being split off again, by treatment with acids or alkalis, after the coupling.

Examples of aminoazo compounds of the general formula III are those which are obtained by diazotising optionally substituted aminobenzenes, such as, for example, aniline, 2-chloroaniline, 3-chloroaniline, 4-chloroaniline, 2-methylaniline, 3-methylaniline, 4-methylaniline, 2-methoxyaniline, 3-methoxyaniline, 4-methoxyaniline, 2-ethoxyaniline, 3-ethoxyaniline, 4-ethoxyaniline, 2-aminobenzenesulphonic acid, 3-aminobenzenesulphonic acid, 4-aminobenzenesulphonic acid, anthranilic acid, 3-aminobenzoic acid, 4-aminobenzoic acid, 5-amino-2-hydroxybenzoic acid, 5-amino-2-methylbenzenesulphonic acid, 3-aminophenylmethanesulphonic acid or 4-aminophenylmethanesulphonic acid, and coupling the diazotisation products to optionally substituted aminobenzenes, such as, for example, aniline, 2-methylaniline, 3-methylaniline, 2-methoxyaniline, 3-methoxyaniline, 2-ethoxyaniline, 3-ethoxyaniline, 2-methoxy-5-methylaniline, 2-ethoxy-5-methylaniline, 5-methoxy-2-methylaniline, 2-aminophenol, 3-aminophenol, 2,5-dimethylaniline, 3,5-dimethylaniline, 2,5-dimethoxyaniline, 3-acetylaminoaniline, 3-methylsulphonylaminoaniline, 3-aminophenylurea, 1,3-diaminobenzene, 3-amino-4-methylbenzenesulphonic acid, 3-amino-4-hydroxybenzenesulphonic acid, 3-amino-4-methoxybenzenesulphonic acid or 3-

aminophenylmethanesulphonic acid; the ω-methanesulphonic acids of the abovementioned aminobenzenes can equally well be used as coupling components, the protective group being split off again, by treatment with acids or alkalis, after the coupling.

Examples of aminoazo compounds of the general formula III are also those which are obtained by diazotising optionally further substituted 4-nitroaminobenzenes, such as, for example, 4-nitroaniline, 4-nitro-2-methoxyaniline, 4-nitroaniline-2-sulphonic acid or 4-nitro-5-methoxyaniline-2-sulphonic acid, and coupling the diazotisation products to optionally substituted hydroxybenzenes, such as, for example, phenol, salicylic acid, 3-hydroxybenzoic acid, 2-hydroxy-6-methylbenzoic acid, 2-hydroxybenzenesulphonic acid or 3-hydroxybenzenesulphonic acid, and then reducing the nitroazo compound to give the aminoazo compound.

Examples of aminoazo compounds of the general formula III are also those which are obtained on treating other aminoazo compounds of the general formula III with agents with which sulphonic acid radicals can be introduced, such as, for example, sulphuric acid, oleum or sulphur trioxide, an example being 4-amino-3,4'-azobenzenedisulphonic acid.

Examples of compounds of the general formula IV are water, methanol, ethanol, glycol, 2-methoxyethanol, phenol, thiophenol, ammonia, hydrazine, methylamine, ethylamine, dimethylamine, diethylamine, ethanolamine, diethanolamine, N-methylethanolamine, N-ethylethanolamine, glycine, N-methylglycine, taurine, N-methyltaurine, aminomethanesulphonic acid, N-methylaminomethanesulphonic acid, aniline, N-methylaniline, 3-aminobenzenesulphonic acid, 4-aminobenzenesulphonic acid, 2-aminonaphthalene-4,8-disulphonic acid, 2-aminopyridine, 2-aminothiazole, benzylamine, pyrrolidine, piperidine, morpholine, 1-amino-2-propanol and bis-(2-hydroxypropyl)-amine.

The reaction between the cyanuric halide, for example cyanuric fluoride, cyanuric chloride or cyanuric bromide, the aminoazo compounds of the general formulae II and III and the compounds of the general formula IV is carried out in three stages in any desired sequence, the first stage being carried out at about 0—10°, the second at about 35—50° and the third at about 80—110°C, and the acid thereby formed being neutralised with alkaline agents, such as, for example, sodium acetate, sodium bicarbonate, sodium carbonate, sodium hydroxide solution, lithium carbonate, lithium hydroxide, potassium carbonate or potassium hydroxide.

Those aminoazo compounds or compounds of the general formula IV which carry groups conferring solubility in water are advantageously reacted first.

The dyestuffs are precipitated from the solution by adding salt and are isolated and dried or isolated by spray-drying. In general, they are obtained in the form of salts, in particular the alkali metal salts, and preferably the sodium salts. The formulae given are those of the free acids.

The new dyestuffs dye cellulose-containing materials in clear yellow colour shades.

In the examples which follow, "parts" denote parts by weight, "percentages" denote percentages by weight and the temperature is given in degrees Centigrade.

EXAMPLE 1

29.5 parts of the aminoazo compound, of the general formula II, obtained from 2-aminonaphthalene-4,8-disulphonic acid and aniline are dissolved in 1,000 parts of water, and a solution of 13.5 parts of cyanuric chloride in 100 parts of acetone is added at 0°, the hydrochloric acid liberated being neutralised by adding 46.5 parts of an aqueous 20% strength solution of sodium carbonate. When the first reaction stage has ended, 22.2 parts of the aminoazo compound, of the general formula III, obtained from 3-aminobenzenesulphonic acid and 2-methoxyaniline are dissolved in 1,000 parts of water and the solution is added to the first mixture. The temperature is increased to 40° and the hydrochloric acid liberated is neutralised by adding 46.5 parts of 20% strength sodium carbonate solution. When the second reaction stage has ended, 15.2 parts of diethanolamine are added. The temperature is increased to 90°, and the mixture is then stirred at this temperature for a further 3 hours. The dyestuff is precipitated by adding 450 parts of potassium chloride and is isolated. After drying, an orange-coloured powder, an aqueous solution of which dyes cellulose-containing materials in greenish-tinged yellow shades, is obtained.

EXAMPLES 2 to 4

Very similar dyestuffs are obtained if, instead of the diethanolamine used in Example 1, 18 parts of an aqueous 25% strength solution of ammonia or 8.9 parts of ethanolamine or N-methylethanolamine are used.

EXAMPLE 5

18.6 parts of the aminoazo compound, of the general formula III, which is obtained by diazotising 4-nitroaniline, coupling the diazotisation product to salicylic acid and then reducing the coupling product are dissolved in 1,000 parts of water and the solution is reacted with a suspension of 13.5 parts of cyanuric chloride in 100 parts of water at 0°, the hydrochloric acid liberated being neutralised by adding 46.5 parts of an aqueous 20% strength solution of sodium carbonate. When the first reaction stage has ended, 29.5 parts of the aminoazo compound, of the general formula II, which is obtained

Example	Compound of the general formula III, obtained from	Compound of the general formula IV
66	4-aminophenylmethanesulphonic acid and 3-acetylaminoaniline	ammonia
67	3-aminophenylmethanesulphonic acid and 3-acetylaminoaniline	diethanolamine
68	"	ethanolamine
69	"	ammonia
70	4-aminobenzenesulphonic acid and 3-aminophenylurea	diethanolamine
71	"	ethanolamine
72	"	ammonia
73	3-aminobenzenesulphonic acid and 3-aminophenylurea	diethanolamine
74	"	ethanolamine
75	"	ammonia
76	4-aminobenzoic acid and 3-aminophenylurea	diethanolamine
77	"	ethanolamine
78	"	ammonia
79	3-aminobenzoic acid and 3-aminophenylurea	diethanolamine
80	"	ethanolamine
81	"	ammonia
82	5-amino-2-methylbenzenesulphonic acid and 3-aminophenylurea	diethanolamine
83	"	ethanolamine
84	"	ammonia
85	4-aminophenylmethanesulphonic acid and 3-aminophenylurea	diethanolamine
86	"	ethanolamine
87	"	ammonia
88	3-aminophenylmethanesulphonic acid and 3-aminophenylurea	diethanolamine
89	"	ethanolamine
90	"	ammonia
91	4-nitroaniline and salicylic acid	diethanolamine
92	"	ethanolamine
93	"	ammonia

Example	Compound of the general formula III, obtained from	Compound of the general formula IV
38	3-aminobenzoic acid and 2-methoxyaniline	ethanolamine
39	,,	ammonia
40	5-amino-2-methylbenzenesulphonic acid and 2-methoxyaniline	diethanolamine
41	,,	ethanolamine
42	,,	ammonia
43	4-aminophenylmethanesulphonic acid and 2-methoxyaniline	diethanolamine
44	,,	ethanolamine
45	,,	ammonia
46	3-aminophenylmethanesulphonic acid and 2-methoxyaniline	diethanolamine
47	,,	ethanolamine
48	,,	ammonia
49	4-aminobenzenesulphonic acid and 3-acetylaminoaniline	diethanolamine
50	,,	ethanolamine
51	,,	ammonia
52	3-aminobenzenesulphonic acid and 3-acetylaminoaniline	diethanolamine
53	,,	ethanolamine
54	,,	ammonia
55	4-aminobenzoic acid and 3-acetylaminoaniline	diethanolamine
56	,,	ethanolamine
57	,,	ammonia
58	3-aminobenzoic acid and 3-acetylaminoaniline	diethanolamine
59	,,	ethanolamine
60	,,	ammonia
61	5-amino-2-methylbenzenesulphonic acid and 3-acetylaminoaniline	diethanolamine
62	,,	ethanolamine
63	,,	ammonia
64	4-aminophenylmethanesulphonic acid and 3-acetylaminoaniline	diethanolamine
65	,,	ethanolamine

Example	Compound of the general formula III, obtained from	Compound of the general formula IV
7	4-aminobenzenesulphonic acid and aniline	diethanolamine
8	"	ethanolamine
9	"	ammonia
10	3-aminobenzeneaulphonic acid and aniline	diethanolamine
11	"	ethanolamine
12	"	ammonia
13	4-aminobenzoic acid and aniline	diethanolamine
14	"	ethanolamine
15	"	ammonia
16	3-aminobenzoic acid and aniline	diethanolamine
17	"	ethanolamine
18	"	ammonia
19	5-amino-2-methylbenzenesulphonic acid and aniline	diethanolamine
20	"	ethanolamine
21	"	ammonia
22	4-aminophenylmethanesulphonic acid and aniline	diethanolamine
23	"	ethanolamine
24	"	ammonia
25	3-aminophenylmethanesulphonic acid and aniline	diethanolamine
26	"	ethanolamine
27	"	ammonia
28	4-aminobenzenesulphonic acid and 2-methoxyaniline	diethanolamine
29	"	ethanolamine
30	"	ammonia
31	3-aminobenzenesulphonic acid and 2-methoxyaniline	diethanolamine
32	"	ethanolamine
33	"	ammonia
34	4-aminobenzoic acid and 2-methoxyaniline	diethanolamine
35	"	ethanolamine
36	"	ammonia
37	3-aminobenzoic acid and 2-methoxyaniline	diethanolamine

from 2-aminonaphthalene-4,8-disulphonic acid and aniline are dissolved in 1,000 parts of water and the solution is added to the first mixture. The temperature is increased to 40° and the subsequent procedure is as in Example 1. An orange-coloured powder, an aqueous solution of which dyes cellulose-containing materials in greenish-tinged yellow shades, is obtained.

EXAMPLE 6

Very similar dyestuffs are obtained if, instead of the diethanolamine used in Example 5, 18 parts of an aqueous 25% strength solution of ammonia, 8.9 parts of ethanolamine or 10.9 parts of N-methylethanolamine are used.

EXAMPLES 7 to 96

If the procedure of the processes indicated in Examples 1—6 is followed and the product obtained from 2-aminonaphthalene-4,8-disulphonic acid and aniline is used as the compound of the general formula II and the compounds indicated in the table below are used as the compounds of the general formulae III and IV, yellow dyestuffs for cellulose-containing materials are likewise obtained:

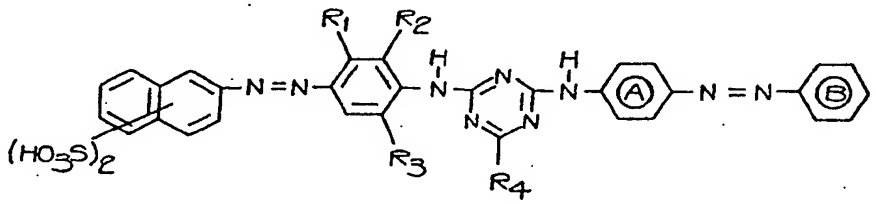
Example	Compound of the general formula III, obtained from	Compound of the general formula IV
94	4-aminoazobenzene and 2 mols of SO_3 (4-aminoazobenzene-2,4'-disulphonic acid)	diethanolamine
95	"	ethanolamine
96	"	ammonia

Similarly good dyestuffs are obtained using N-methylethanolamine as compound IV.

Similarly good dyestuffs are obtained if, instead of the compound of the general formula II used in Examples 1—96, those obtained from 2-aminonaphthalene-4,8-disulphonic acid and 2-methoxyaniline or 3-acetaminoaniline and 3-aminophenylurea are used.

CLAIMS

1. A dyestuff of the general formula



(I)

in which

R_1 denotes a hydrogen or halogen atom or an alkoxy or acylamino group,

R_2 and R_3 independently of each other denote a hydrogen or halogen atom or an alkyl, alkoxy, or acylamino group and

R_4 denotes a halogen atom or an OR_5, SR_5 or NR_6R_7 group

in which

R_5 denotes a hydrogen atom, C_1 to C_6 alkyl, aryl, hetaryl, aralkyl or cycloalkyl and

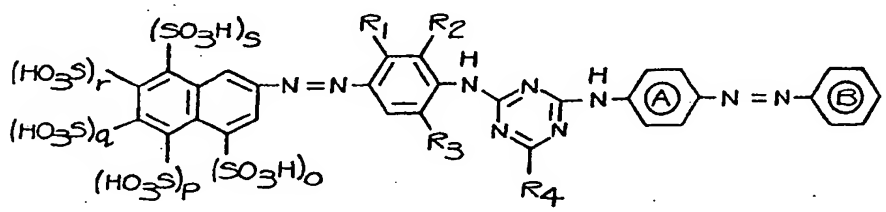
R_6 and R_7 independently of each other denote a hydrogen atom or an amino, C_1 to C_6 alkyl, aryl, hetaryl, aralkyl or cycloalkyl group, or together form a 5-membered or 6-membered ring, optionally with the inclusion of one or more hetero-atoms, and the alkyl, aryl, hetaryl and aralkyl groups are optionally substituted,

and in which

the rings A and B are optionally substituted.

2. A dyestuff according to claim 1 in which R_6 and R_7 together form a 5-membered or 6-membered ring with the inclusion of one or more oxygen and/or nitrogen atoms.

3. A dyestuff according to claim of the general formula



(V)

in which

R_1, R_2, R_3 and R_4 have the same meanings as in claim 1 and

o, *p*, *q*, *r* and *s* are 0 or 1, but $o + p + q + r + s$ equals 2,

and in which

the rings A and B are optionally substituted.

4. A dyestuff according to any of the foregoing claims in which R_4 has the same meaning as in claim,

o, *p*, *q*, *r* and *s* have the same meaning as in claim 3 and

R_1 denotes $NHCOCH_3$ or $NHCONH_2$ when

R_2 and R_3 denote hydrogen atoms, or

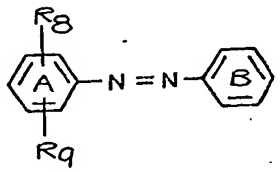
R_2 denotes a hydrogen atom or a methyl, methoxy, or ethoxy group when

R_1 and R_3 denote hydrogen atoms,
and in which
the rings A and B are optionally substituted.

5. A dyestuff according to any of the foregoing claims in which
R_1, R_2 and R_3 have the same meanings as in claim 1 or 4,
o, p, q, r and *s* have the same meaning as in claim 3 and
R_4 denotes OH, OCH_3, $OC_2H_4OCH_3$, NH_2, NHC_2H_4OH, $N(C_2H_4OH)_2$, $N(CH_3)C_2H_4OH$, $N(C_2H_5)C_2H_4OH$, $NHCH_2CH(CH_3)OH$, $N(CH_2CH(CH_3)OH)_2$, $NC_2H_4OC_2H_4$—, NHC_6H_5, $N(CH_3)C_6H_5$, NH(3—$C_6H_4SO_3H$) or NH(4—$C_6H_4SO_3H$)
and in which
the rings A and B are optionally substituted.

6. A dyestuff according to claim 5,
in which
R_1, R_2 and R_3 have the same meaning as in claim 1 or 4,
o, p, q, r and *s* have the same meaning as in claim 3, and
R_4 denotes NH_2, NHC_2H_4OH, $N(C_2H_4OH)_2$ or $N(CH_3)C_2H_4OH$,
and in which
the rings A and B are optionally substituted.

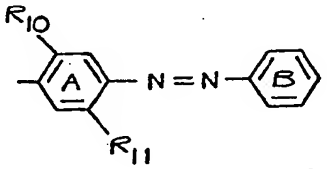
7. A dyestuff according to any of the foregoing claims in which the moiety consisting of rings A and B and the invervening azo bridge is a radical of the general formula



(Va)

in which
R_8 and R_9 independently of each other denote a hydrogen or chlorine atom or an OH, OCH_3, OC_2H_5, $OCOCH_3$, $OCOC_6H_5$, OSO_2CH_3, $OSO_2C_6H_5$, CH_3, CH_2SO_3H, NH_2, $NHCOCH_3$, $NHCOCH_2OH$, $NHCOC_6H_5$, $NHCONH_2$, $NHSO_2CH_3$, $NHSO_2C_6H_5$ COOH or SO_3H group,
and in which
the ring B is optionally substituted.

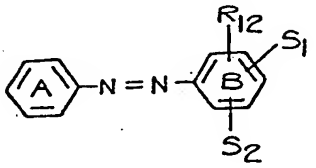
8. A dyestuff according to claim 7 in which the radical (Va) is of the general formula



(Vb)

in which
R_{10} denotes H, CH_3, Cl, OCH_3, OC_2H_5 or SO_3H and
R_{11} denotes H, CH_3, Cl, OCH_3, OC_2H_5, $NHCOCH_3$ or $NHCONH_2$,
and in which
the ring B is optionally substituted.

9. A dyestuff according to any of the foregoing claims in which the moiety consisting of rings A and B and the intervening azo bridge is a radical of the general formula



(Vc)

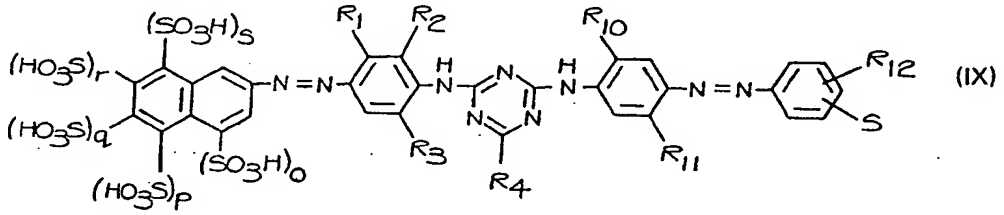
in which
R_{12} denotes a hydrogen or chlorine atom or a methyl, methoxy, ethoxy or hydroxyl group
S_1 and S_2 independently of each other denote a hydrogen atom or a SO_3H, COOH or CH_2SO_3H group,
and in which
the ring A is optionally substituted.

10. A dyestuff according to claim 9 in which
R_{12} denotes 4—H, 4—CH_3, 4—OH or 4—OCH_3, when
S_1 denotes 3—SO_3H, 3—COOH or 3—CH_2SO_3H and

S_2 denotes a hydrogen atom,
R_{12} denotes 3—H, when
S_1 denotes 4—SO_3H, 4—COOH or 4—CH_2SO_3H and
S_2 denotes a hydrogen atom.

and in which
the ring A can optionally be substituted.

11. A dyestuff according to claim 1 of the general formula

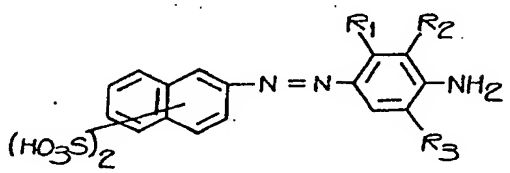


(IX)

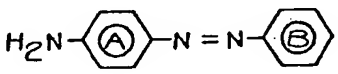
in which
o, *p*, *q*, *r* and *s* are 0 or 1, but $o + p + q + r + s$ equals 2,
and in which
R_1, R_2 and R_3 have the same meanings as in claim 4,
R_4 has the same meaning as in claim 6,
R_{10} and R_{11} have the same meanings as in claim 8, and
R_{12} and S have the same meanings as in claim 10.

12. A dyestuff according to claim 1 as hereinbefore specifically identified.

13. A process for the production of a dyestuff as claimed in claim 1 in which, per mol a cyanuric trihalide, one mol of an aminoazo compound of the general formula



in which
R_1, R_2 and R_3 have the same meanings as in claim 1, one mol of an aminoazo compound of the general formula



in which
the rings A and B are optionally substituted, if R_4 is other than a halogen atom, one mol of a compound of the general formula

$$HR_4$$

in which
R_4 has the same meaning as in claim 1, other than a halogen atom, are reacted with one another in any desired sequence in the presence of an acid-binding agent.

14. A process for the production of a dyestuff as claimed in claim 1 when carried out substantially as described in any one of the Examples.

15. A dyestuff as claimed in claim 1 when produced by the process of claim 14.

16. A process for dyeing a cellulose-containing material comprising treating the material with a dyestuff as claimed in any of claims 1 to 12 and 15.

17. A cellulose-containing material when dyed by the process of claim 6.

Printed for Her Majesty's Stationery Office by the Courier Press, Leamington Spa, 1980. Published by the Patent Office, 25 Southampton Buildings, London, WC2A 1AY, from which copies may be obtained.